**Green University of Bangladesh**

**Department of Computer Science and Engineering**

**CSE 103: Structured Programming, Batch: PC-222 DA**

**Total Marks: 15 Class Test Examination -III**

**Answer all the questions.**

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| 1. | Write a c program to satisfy the following requirements:  A. Read your student id as an input (e.g. 222902123). Identify and store every digit in an array. [01 Marks]  B. Print the summation of all the digits from the array in a user-defined function. [01 Marks]  C. Find the number of prime digits from the array in a user-defined function. [01 Marks]  D. Find and print the frequency of each of the digits from the array in a user-defined function. [02 Marks]  E. Find and print the unique digits from the array in a user-defined function. [02 Marks] | **7** |
| 2. | Write a single C program where take a string as an input, check the taken string is palindrome or not using recursion and also check how many distinct Character it has. | **3** |
| 3. | Write a C Program to Find Sum of Diagonal Elements of a square Matrix using function. | **2** |
| 4. | Write a single c program where given an array of N integers and an integer K, Count the number of pairs such that each pair of integers their sum equal to K.  Sample input: Sample output:  8 6 3  2 5 7 6 10 4 1 0  There are three pairs (2,4) (5,1) and (6,0) so the answer is 3. | **3** |
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